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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,939	10/29/1999	MICHEL AUTHIER		6547

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EXAMINER	
PRUNNER, KATHLEEN J	
ART UNIT	**PAPER NUMBER**
3751	13

DATE MAILED: 11/30/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/429,939	Authier et al.
Examiner	**Art Unit**
Kathleen J. Prunner	3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *THREE* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Sep 21, 2001*

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *13-25* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *13-25* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
18) ☐ Interview Summary (PTO-413) Paper No(s). _____
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other:

DETAILED ACTION

Continued Prosecution Application

1. The request filed on September 21, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/429,939 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 13 contains terms lacking proper antecedent basis. The claim recites the limitations "the temperature of the water" in part E, "the temperature of the ambient air" and "the spa's equipment" in part F. There is insufficient antecedent basis for these limitations in the claim.

5. Claim 17 contains a term lacking proper antecedent basis. The claim recites the limitation "the temperatures reported". There is insufficient antecedent basis for this limitation in the claim.

6. Claim 19 contains terms lacking proper antecedent basis. The claim recites the limitations "the temperature of the water" in part F, "the temperature of the ambient air" and "the spa's

equipment" in part G, "said at least one pump" on line 3 of part H. There is insufficient antecedent basis for these limitations in the claim.

7. Claim 23 contains terms lacking proper antecedent basis. The claim recites the limitations "said at least one pump", "said at least one blower", and "the temperatures reported". There is insufficient antecedent basis for these limitations in the claim.

8. Claim 25 contains terms lacking proper antecedent basis. The claim recites the limitations "the temperature of the ambient air" and "the spa's equipment" in part D. There is insufficient antecedent basis for these limitations in the claim.

9. Regarding claim 19, parts D and E render the claims indefinite because both parts call for the same air blower for blowing air into the spa tub. Part E is a duplicate of part D.

10. Regarding claims 19 and 23, the phrase "said at least one air blower", on lines 3-4 in part H and on line 2, respectively, renders the claims indefinite because parts D and E in claim 19 recite two different air blowers. Hence, it is unclear which air blower is intended.

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins et al. ('720) in view of Dundas. Tompkins et al. disclose a freeze control system for a spa having a spa tub or container 11 for holding water, spa piping 35 for circulating water to and from the spa tub 11,

a heating element 26 for heating the water, a pump 24 for pumping water, a temperature sensor 21 for detecting the temperature of the water in the spa tub 11, and a computer 10 programmed to process signals and selectively activate and deactivate the heating element 26 and the pump 24 (note from line 66 in col. 18 to line 36 in col. 19). Although Tompkins et al. use water temperature sensor 21 as well as other water sensors to operate the freeze control system, attention is directed to Dundas who discloses another freeze control system for a spa or pool that uses both a water temperature sensor and an ambient air temperature sensor to activate the control system (note lines 54-57 in col. 1 and lines 16-33 in col. 2) in order to heat the pool using minimal energy with less waste and expense (note lines 15-19 and 35-37 in col. 1). It would have been obvious to one of ordinary skill in the spa/pool art, at the time the invention was made, to use an ambient air temperature sensor in conjunction with the water temperature sensor in the control system of Tompkins et al. in view of the teachings of Dundas in order to more effectively operate the control system using minimal energy and less waste and expense. With respect to claims 14 and 20, the positioning of the ambient air temperature sensor is considered to be an obvious expedient to the skilled artisan since to obtain an accurate ambient air temperature reading, the ambient air temperature sensor should necessarily be mounted so as to be unaffected by any apparatus that emits heat including that of the components of the control system. With regard to claims 15, 16, 21 and 22, it is considered that to position the ambient air temperature sensor closer to the spa equipment where it can be affected by the heat generated by the operating and control systems of the spa/pool and to have the computer make the required correction factors to account for this heat would be an obvious expedient to the skilled

artisan especially when available space is limited and accurate readings are key to the efficient operation of the spa. With regard to claims 18 and 24, although it is considered that the predetermined time period necessary to effect operation of the pump is an obvious expedient to the skilled artisan, to use a predetermined time period of one minute to effect operation of the pump is simply the result of optimization of the prior art teachings through routine experimentation, which is not a matter of invention, absent a showing to the contrary (see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA) 1955), and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). With respect to claim 19, Tompkins et al. further disclose an air blower 28 for blowing air into the spa tub 11.

Response to Arguments

13. Applicant's arguments filed June 25, 2001 (Paper No. 9) have been fully considered but they are not deemed persuasive.

14. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching, suggestion and motivation are both found in the references themselves as well as in the knowledge

generally available to one of ordinary skill in the art as stated in the above rejection of the claims. Both the Tompkins et al. and Dundas references relate to the common art of pools, tubs and spas all of which are containers for holding a body of water and, more specifically, to the common art of freeze control systems for contained bodies of water. Since applicant is concerned with a freeze control system, it is considered that both the Tompkins et al. and Dundas references are pertinent to the particular problem, i.e., preventing the freezing of a body of water, with which applicant is concerned. In this regard, the Dundas reference clearly states that its system can be operated in subfreezing weather to prevent ice from forming (note lines 22-25 in col. 4).

15. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

16. All claims are drawn to the same invention claimed in the parent application prior to the filing of this Continued Prosecution Application under 37 CFR 1.53(d) and could have been finally rejected on the grounds and art of record in the next Office action. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing under 37 CFR 1.53(d). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication from the examiner should be directed to Examiner Kathleen J. Prunner whose telephone number is 703-306-9044. Although the examiner participates in the maxi-flex program, she can usually be reached Monday through Friday from 5:30 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson, can be reached on 703-308-2580. The FAX phone number for the organization where this application is assigned is 703-308-7766.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-0861.

Kathleen J. Prunner

Kathleen J. Prunner:kjp

November 14, 2001

GREGORY L. HUSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

11-19-01